

March 30, 2017

Elizabeth Hughes, Town Planner  
Brooke Whiting Cash, Chair, Planning Board  
Robert Sepucha, Chair, Zoning Board of Appeals  
Town of Concord  
Concord, MA 01742

**Re: ITW Middlesex School Cell Tower Application Filed 12-1-16**

Dear Members of the Zoning Board of Appeals and Planning Board:

We, the undersigned, are residents of Concord and live in the area abutting the proposed Industrial Tower & Wireless Inc. (the applicant) facility and transmission tower at 1400 Lowell Road. We have reviewed in detail the applicant's submitted materials for Special Permit and Site Plan Review, dated December 1, 2016, as well as documents submitted by external consultants related to this application.<sup>1</sup>

We have serious concerns regarding significant and prevalent deficiencies in these documents. We outline these deficiencies in this letter and call them to your attention. We believe the applicant's submitted materials are inadequate for the purposes of assessing compliance with Section 7.8 ("Personal Wireless Communications Facility"), Section 11.6 ("Special Permit"), and Section 11.8 ("Site Plan Review") of the Town's Zoning Bylaws. We believe that there are multiple, significant reasons supported by substantial evidence to deny the applicant's request for Special Permit.

Each of the undersigned and their families reside within the 1000-foot radius centered on the proposed facility, and as such are impacted explicitly by the applicant's requested waiver pursuant to Section 7.8.4.5 of the Town's Zoning Bylaws. As such, we respectfully request that the Town Zoning Board of Appeals and Planning Board earnestly and urgently review our concerns.

Sincerely,

Town Residents of Bartkus Farm

Aram Adourian and Anna Ohanyan (#11)  
Bin Weng and Kun Liu Weng (#8)  
Scott Li and Shirley Ao (#9)  
Suzanne and Rob Mirak (#6)  
Ignacio and Rosie Garcia (#17)

Lisa Hansel (#14)  
A.J. and Sheila Sohn (#15)  
Stuart and Laura Strong (#16)  
Dan and Julie del Sobral (#18)

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<sup>1</sup> As posted at: <http://www.concordma.gov/DocumentCenter> [Accessed March 11, 2017].

## Executive Summary

The application submitted by Industrial Tower & Wireless Inc. (the applicant) for a proposed personal wireless communications facility and transmission tower at 1400 Lowell Road is significantly deficient for the purposes of assessing the proposal in light of Section 7.8 (“Personal Wireless Communications Facility”), Section 11.6 (“Special Permit”), and Section 11.8 (“Site Plan Review”) of the Town of Concord’s Zoning Bylaws. These deficiencies are outlined in this document. Similarly, the analysis and review commissioned by the Town, and conducted by an external consultant (IDK Communications Inc.), is characterized by multiple deficiencies, and is not suitable for the purposes of the Town Zoning Board of Appeals and the Planning Board.

In brief:

1. Both the applicant and the external consultant have willfully neglected and/or ignored any consideration of existing facilities, and any modifications that may be made to such existing facilities, associated with Sprint Corporation (Sprint). This represents not only a violation of the Town’s Zoning Bylaws, but is also a remarkable and concerning omission that should call into serious question the credibility and standing of the applicant before the Town, its Boards and its residents. As such, there can fundamentally be no conclusion drawn regarding the suggestion that a significant gap in coverage would exist that would not be addressable by use of, or adjustment to, existing facilities.
2. The applicant has willfully neglected and/or ignored plain and well-defined requirements articulated in the Bylaws, including the requirement that specific documentation be submitted to the Town. This documentation includes parameters of existing facilities that may be used instead of a new facility and tower, and include, as described in the Bylaws, existing facilities' ground elevation, height of tower, type of antenna(s), antenna radiofrequency gain, height of antennas on tower or structure, output frequencies, number of channels, power inputs, maximum output per channel, and antenna radial plots for each antenna. We believe strongly that availability of these data is critical to the evaluation, by the Town, by its residents and by any external consultants, of the existence of any putative significant gap in coverage that is not able to be addressed by adjustments to existing facility sites. We believe that this is why these requirements are articulated in the Bylaws, and are very troubled by the applicant’s careless disregard of these requirements.
3. Although the applicant is requesting relief from provisions of subsection 7.8.4.2, the applicant's submission is characterized by significant deficiencies and errors even in the identification of the violations of subsection 7.8.4.2 from which relief is being sought.

These deficiencies include: omitting evidence in the applicant's own submitted data that more than 50% of proposed coverage would fall outside of the Town; omission of any consideration in the submission of the fact that the proposed site is clearly located in a designated priority habitat of rare species as listed by Massachusetts, specifically Massachusetts Priority Habitat No. PH-1381; omission of any consideration of the violation of height limits and of the associated flawed balloon testing exercise.

4. The applicant has failed to demonstrate, in a manner convincing to a reasonable reviewer, and as required by the Bylaws, that a putative coverage gap would not be reduced or eliminated by, for example, (i) using and/or modifying or adjusting existing facilities associated with Sprint, (ii) adjusting existing facilities in the Town and/or in abutting towns in which applicant has a legal or equitable interest, (iii) adjusting existing facilities in the Town and/or in abutting towns in which applicant does not have a legal or equitable interest, and/or (iv) the use of filler sites in conjunction with any or all personal wireless communication facility sites listed above.
5. The extent of relief being sought by the applicant is exceptionally large, and comprises seven (7) distinct subsections of the General Requirements (subsection 7.8.4.2.). The exceptionally large extent of the relief being sought is not mitigated by a demonstration, as the Bylaws require, that the project provide a 'minimally intrusive viable means of reducing or eliminating' a putative significant gap in coverage without substantial detriment to the neighborhood. The applicant has failed to demonstrate that the use and/or modification or adjustment of existing facilities associated with Sprint or otherwise would address any putative coverage gap in a more minimally intrusive manner. The applicant has further failed to present any evidence that it has considered alternate viable modern engineering configurations, such as the physical separation of base station and tower structure, which would be eminently suitable to multiple locations on the Middlesex School property without violating subsections of the General Requirements (subsection 7.8.4.2.).

As such, we believe that the Town is compelled to reject the pending application and deny the applicant's request for Special Permit. We further believe that the scope and magnitude of the deficiencies and omissions in the applicant's pending submission call into serious question the credibility of the applicant before the Town, and represent a level of disdain and carelessness toward the Town's Bylaws and its residents that should disqualify this applicant in any subsequent application process.

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## Description of Selected Significant Deficiencies

### *7.8.4.1 Adequate coverage, adequate capacity and justification of need:*

- (a) *The applicant shall provide written documentation of any facility sites in the Town and in abutting towns in which it has a legal or equitable interest, whether by ownership, leasehold or otherwise. Said documentation shall demonstrate the following: that these facility site(s) are not already providing, or do not have the potential, by adjusting the personal wireless communication facility on the site(s), to provide adequate coverage and/or adequate capacity; that there is a significant gap in coverage; and, **that the proposal reduces or eliminates the significant gap in coverage in a manner that is least intrusive upon the interests of the Town as expressed in the purpose and intent of this Section.** A “gap” in coverage exists when a remote user of personal wireless communication services is unable to either connect, directly or indirectly, with a base station or to maintain a connection capable of supporting a reasonably uninterrupted communication. A “significant gap” depends upon the physical size of the gap and upon the number of customers affected by that gap. **Documentation shall include, for each facility site listed, the exact location, ground elevation, height of tower or structure, type of antennas, antenna gain, height of antennas on tower or structure, output frequency, number of channels, power input and maximum output per channel. Potential adjustments to these existing facility sites, including changes in antenna type, orientation, gain, height or power output shall be specified. Radial plots from each of these facility sites, as they exist and with adjustments as above, shall be provided as part of the application.** [Emphasis added]*
- (b) *The applicant shall provide written documentation that they have examined all personal wireless communication facility sites located in the town and in abutting towns in which the applicant has no legal or equitable interest to determine whether those existing facility sites can be used to provide adequate coverage and/or adequate capacity. **Documentation shall include all information outlined above. Radial plots from each of these facility sites as proposed shall also be provided.** [Emphasis added]*

We have serious concerns regarding the following significant deficiencies related to Section 7.8.4.1 (a) and (b):

1. The applicant has **not provided the required documentation** that includes, for each and every facility site in the Town and in abutting towns, that may be already providing, or may have the potential to provide by adjustment, adequate coverage, all of the following information: ground elevation, height of tower or structure, type of antenna(s), antenna

gain, height of antennas on tower or structure, output frequency, number of channels, power input, and maximum output per channel. The only information provided in the application for existing facility sites of AT&T, Verizon and T-Mobile is location of existing facility sites and generic descriptors (e.g. “steeple”, “flagpole”).

2. The applicant has **not** provided, as part of the application and as required by Section 7.8.4.1, specifications of potential adjustments that may be implemented at each such facility site, or at multiple facility sites, including changes in antenna type, orientation, gain, height or power output.
3. The applicant has **not** provided, as part of the application and as required by Section 7.8.4.1, radial plots of each such facility site, as they exist and with specified adjustments. We believe that the term ‘radial plot’, as used in Section 7.8.4.1, clearly and obviously refers to the industry-standard radial polar plot representation of the directional (angular) dependence of the radiation pattern associated with each transmission antenna.
4. The applicant has **not** provided, as part of the application and as required by 7.8.4.1(b), any written documentation relating to facilities associated with **Sprint Corporation** (Sprint). Sprint provides extensive wireless voice and data coverage in the Town, and in abutting Towns, and Sprint services the Town using wireless facilities in the Town and in abutting towns. However, there is no consideration of this wireless carrier in the applicant’s submission. **This omission is particularly remarkable and concerning, and we believe this omission calls into serious question the credibility and standing of the applicant before the Town, its Boards and its residents.** Documentation to be submitted by applicant is required to include all of the following, in accordance with subsection 7.8.4.1 (b): exact location, ground elevation, height of tower or structure, type of antenna(s), antenna gain, height of antennas on tower or structure, output frequency, number of channels, power input, maximum output per channel, and radial plots of all facilities.
5. We believe strongly that availability of these data is critical to the evaluation, by the Town, by its residents and by external consultants, of the existence of a significant gap in coverage that is not able to be addressed by adjustments to existing facility sites.
6. We note for completeness that Section 7.8.4.1 is **not** subject to relief provisions as defined in Section 7.8.4.5.

7.8.4.1 (c)

*The applicant shall **provide written documentation (including radial plots)** that they have analyzed the provision of adequate coverage and adequate capacity through the use of filler sites in conjunction with all personal wireless communication facility sites listed above. [Emphasis added]*

Based on review of the submitted materials, the applicant has **not** provided written documentation **including radial plots** of analyses related to the provision of adequate coverage and adequate capacity through the use of filler sites.

7.8.4.1 (d)

*The applicant shall provide a **map of all proposed facilities** to be applied for over the next twenty (20) months (or a complete build-out analysis) by the personal wireless communication service provider. Such map shall also include any and all existing personal wireless communication facility(s) of the provider and known proposed facilities of other personal wireless communication service providers. [Emphasis added]*

Based on review of the submitted materials, the applicant has **not** provided a map or other listing of all proposed and/or planned facilities to be applied for over the next 20 months. The applicant has not provided any affirmative statement by all service providers (AT&T, Verizon, and T-Mobile) that there are no proposed facilities to be applied for over the next 20 months. Additionally, the applicant has **not** provided a map or other listing of proposed facilities by other wireless communication service providers, including by Sprint, or documentation confirming the absence of such proposals or plans.

7.8.4.2 General Requirements:

(e) [...] *In areas where there is significant tree canopy, the maximum height of a tower **shall not exceed twenty (20) feet above the average height of the natural pre-existent tree canopy within a one-hundred fifty (150) foot radius of the tower.***

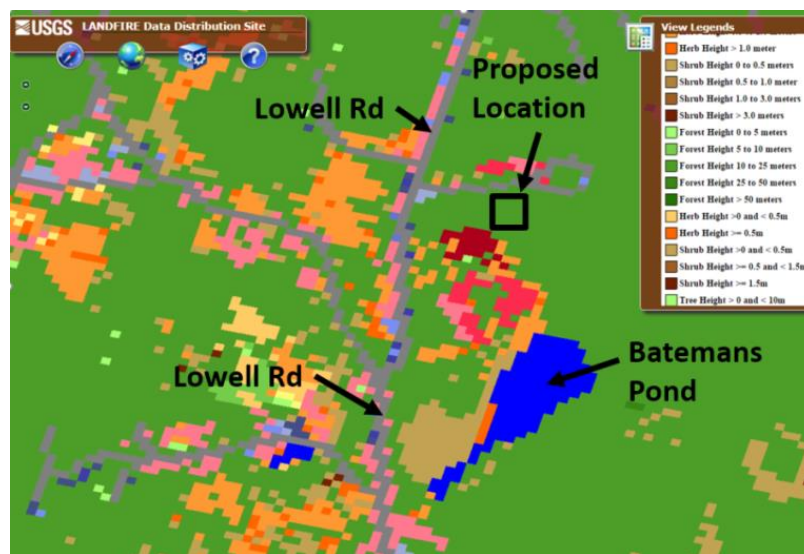
*The Board may permit an **increase in the height** of a tower, or attachment thereto, to facilitate co-location, provided the Board determines that **no material increase in visual impacts will result from the increased height**, but in no case shall the height exceed one-hundred fifty (150) feet. [Emphasis added]*

We have serious concerns regarding compliance with Section 7.8.4.2 (e):

1. As shown in Figure 1 and Figure 2 below, the proposed 120-foot tall monopole tower **clearly exceeds** 20 feet above the average height of the existing tree canopy

within a 150-foot radius. Figure 1 is an excerpt of a high-resolution map from the United States Geological Survey of average tree canopy height.<sup>2</sup> Figure 1 indicates that the tree canopy height of the proposed site is in the category labeled as: “Forest Height 10-25 meters”, i.e. that the existing tree canopy in the area of interest is between approximately 33 feet and 82 feet. Figure 2, taken from applicant’s submitted crane/balloon test of December 30, 2016, confirms that the height of the proposed tower greatly exceeds 20 feet above the average height of the existing tree canopy.<sup>3</sup>

2. We further do not believe that permitting an increase in the height of a tower applies to a proposed new tower based on 7.8.4.2 (e), because the wording of the relevant clause in 7.8.4.2 (e) is clearly directed to applicants with existing tower facilities who are seeking to modify the height of such an existing tower (“...may permit an increase in the height of a tower...”; the word ‘increase’ indicates an existing structure). The current applicant is proposing to build a new tower, rather than modifying an existing tower.



**Figure 1.** United States Geological Survey of tree canopy height; see text for details. The area around the proposed tower (green color) is categorized as “Forest Height 10-25 meters.”

<sup>2</sup> <https://landfire.cr.usgs.gov/viewer/viewer.html?bbox=-74.1560996978641,40.5150022938849,-69.8726210418063,44.5398361067571> [accessed March 11, 2017].

<sup>3</sup> <http://concordma.gov/DocumentCenter/View/8101> [accessed March 11, 2017].



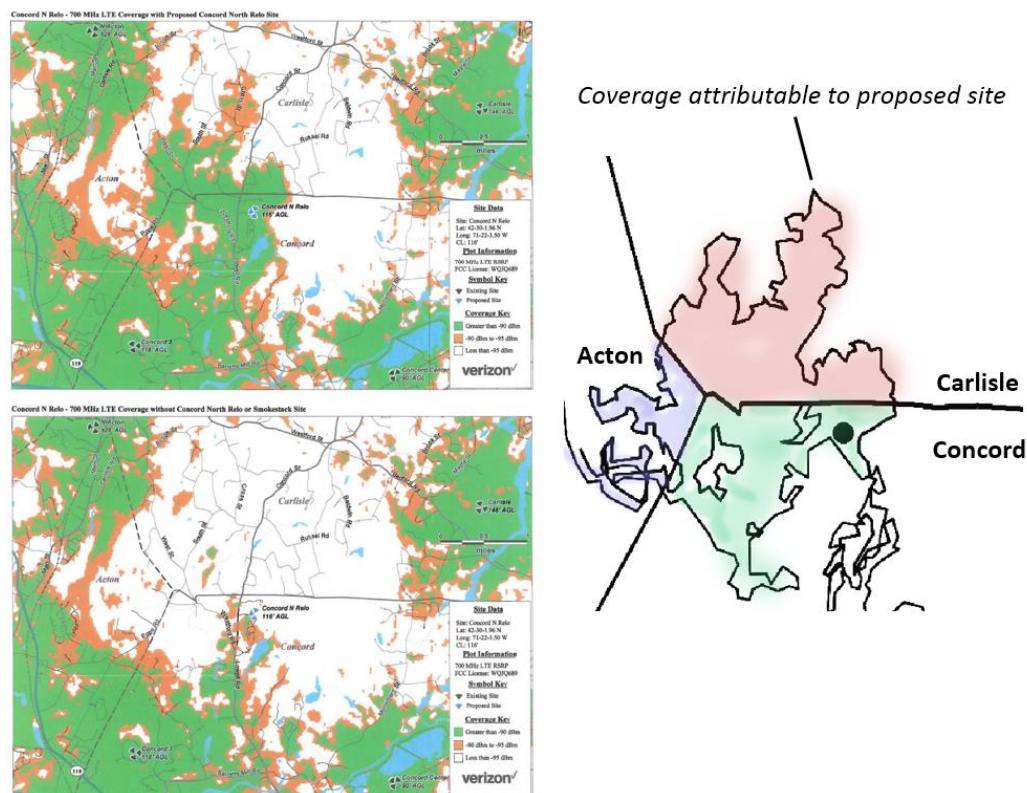
**Figure 2.** Photograph from applicant's submitted crane/balloon test documentation of December 30, 2016, illustrating extent of violation of tree canopy height restriction.



#### 7.8.4.2 General Requirements:

- (f) *If primary coverage from the proposed personal wireless communication facility (greater than 50%) is outside the Town of Concord, the permit may be denied unless the Applicant can show that they are unable to locate within the Town which is primarily receiving service from the proposed facility.*

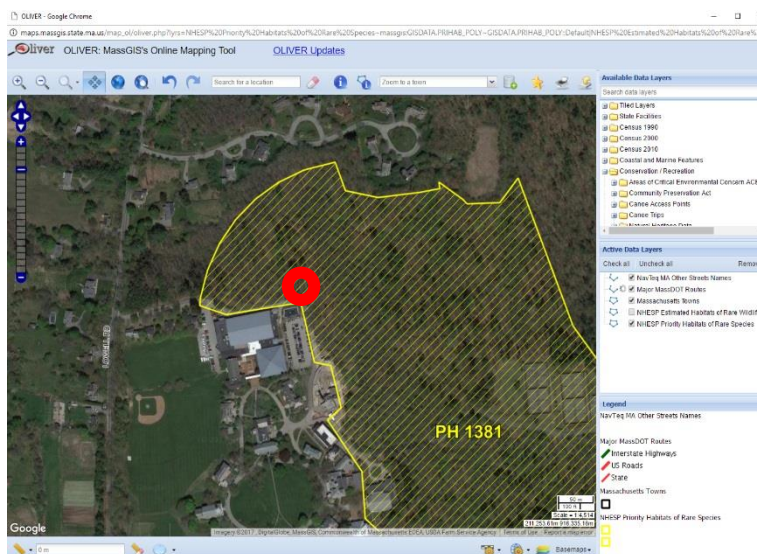
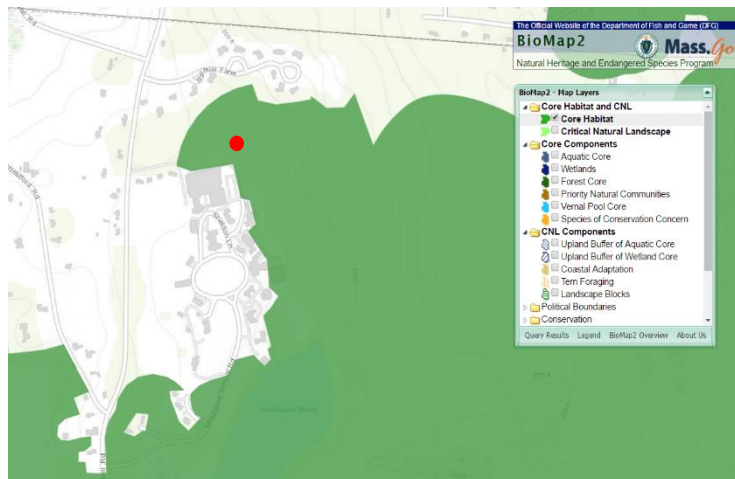
We have serious concerns regarding compliance with Section 7.8.4.2 (f) and the applicant's claims of compliance with this section. We analyzed a sampling of the data presented by the applicant in the submission materials of December 1, 2016 on Tab 3 page 6, and on Tab 3 page 7, which depict for Verizon what is noted as "700 MHz LTE Coverage without Concord North Relo or Smokestack Site" (bottom left in graphic below) and "700 MHz LTE Coverage with Proposed Concord North Relo Site," (top left in graphic below) respectively. By analyzing the subtractive difference between these two maps, it is straightforward to observe that the more than 50% of the coverage attributable to the applicant's proposed site for Verizon is outside the Town of Concord.



#### 7.8.4.2 General Requirements:

(j)(vi) [No new tower for a personal wireless communication facility, shall be located within:] the habitat of any Massachusetts listed rare or endangered wildlife or rare plant species[.]”

We have serious concerns regarding compliance with Section 7.8.4.2 (j)(vi), because the proposed site is clearly located in a designated priority habitat of rare species as listed by Massachusetts. Specifically, the proposed site is located in Priority Habitat No. PH-1381. (We are unclear why the Town Planner’s report of March 10, 2017 does not acknowledge this.) The map immediately below from Mass.Gov indicates PH-1381 in green color; proposed site is indicated by red circle.<sup>4</sup>



<sup>4</sup> Source: <http://maps.massgis.state.ma.us/dfg/biomap2.htm>; [http://maps.massgis.state.ma.us/map\\_ol/oliver.php](http://maps.massgis.state.ma.us/map_ol/oliver.php) [accessed March 11, 2017].

Specifically, we are very concerned about the adverse impacts of a 120-foot tower structure for species listed by both Massachusetts and the U.S. Fish and Wildlife Service as threatened and endangered, and whose local habitat would be permanently damaged by the proposed facility, including the Northern Long-Eared Bat (*Myotis septentrionalis*), the Red knot bird (*Calidris canutus rufa*), and the endangered flowering plant Sandplain gerardia (*Agalinis acuta*).<sup>5</sup> Of particular concern for the neighborhood impacted by the proposed facility is the damaging effect on the habitat of the Northern Long-Eared Bat, which feeds on mosquitos and provides a critical natural mechanism for the control of mosquito-borne diseases including those caused by the West Nile virus.

#### 7.8.4.3 *Evaluation by independent consultants:*

*Upon submission of a complete application for a special permit under this Section, the Board shall engage the services of a qualified independent consultant and shall provide the independent consultant with the completed application and existing documentation for analysis and review. The independent consultant shall gather additional documentation and conduct additional research as necessary to support the analysis and review. Access to the site to conduct any necessary site visits shall be provided to the qualified independent consultant. The qualified independent consultant shall submit to the Board a written recommendation and an opinion as to the conformance of the application with the requirements of this Section.*

We have serious concerns regarding deficiencies in the analysis and review conducted by the independent consultant (IDK Communications Inc.), and believe that the submitted written recommendation and opinion based on this review and analysis are not suitable for any purpose of the Town Zoning Board of Appeals and the Planning Board.

1. The IDK Communications Inc. report, dated February 21, 2017, is devoid of any description of analytical or experimental methodology. The narrative of the report is generic, and any inputs, outputs, and interpretations of any performed analyses and results, such as for coverage analysis, are absent. The Coverage Summary and the review of the applicability of Section 7.8 of the Town's Zoning Bylaws are simply declarative and perfunctory, and appear to be simple regurgitations of materials supplied by Verizon, AT&T and T-Mobile, with no added original content. In light of these deficiencies, the suitability of this report for any purpose of the Town Zoning Board of Appeals and Planning Board would appear to be highly suspect.

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<sup>5</sup> <https://ecos.fws.gov/ecp0/reports/species-by-current-range-county?fips=25017> [accessed March 11, 2017].

Examples of our concerns and questions of the IDK Communications Inc. report include such basic ones as:

- (i) It is repeatedly noted that “IDK ran coverage...” (Page 5). What is the nature of “running” coverage? **What does this mean?** This text is not grammatical English, and as such its meaning is unintelligible.
- (ii) The consultant’s coverage maps **do not consider facilities associated with Sprint Corporation** (Sprint), either with regard to current coverage, or with regard to potential modification of coverage to address any putative coverage gap. Sprint provides extensive wireless voice and data coverage in the Town, and in abutting Towns, and Sprint services the Town using wireless facilities in the Town and in abutting towns. **There is no reason given for this remarkable omission.**

The consultant was charged by the Town to “... Perform an independent coverage analysis” (IDK Communications Inc. letter of February 21, 2017). **We believe that any reasonable reviewer would find such omission at best inept and therefore not part of a qualified review, and at worst simply a recitation of the applicant’s claims and therefore not independent.**

- (iii) Are the Boards to assume that the provided coverage maps are identical for all download and upload speeds tested? What were these speeds? 5 Mbps? 1 Mbps? 3G? 4G? Is there any relation between speed and coverage? What explains the discordance between the coverage maps generated by the consultant and those submitted by the applicant?
- (iv) It is claimed that when “IDK... looked at inserting the proposed monopole site for AT&T... the loss of coverage realized by eliminating the smokestack was reinstituted [sic] in those areas.” (Page 6). What transmitter power was assumed for this analysis, what directionality, what antenna gain, what weather conditions, etc.? We believe that it is reasonable to have expected that the level of detail provided by the consultant be minimally the level of detail articulated in subsection 7.8.4.1 of the Zoning Special Provisions.

2. The IDK Communications Inc. report concludes the following (which is arguably a valuable case study for logical contradiction and tautology):

“The application and our review confirms that a gap in coverage exists without the smokestack site. No existing sites can fill this gap in coverage.” (Page 7)

Of course, it is deduced from the above declaration that the confirmed gap in coverage can be filled by the smokestack site.

#### 7.8.4.5 Relief from general requirements:

*The Board may, upon advice of the Planning Board and a qualified independent consultant, grant relief from the general requirements contained in subsection 7.8.4.2 (rather than require an applicant to seek a variance from this Bylaw) where the Board finds that the relief is supported **by the submittal of a study prepared by a qualified technical consultant showing a significant gap in coverage**, where the Board finds that the extent of the granted relief is mitigated by a showing that **the project provides a minimally intrusive viable means of reducing or eliminating such significant gap in coverage**, and where the Board finds that the desired relief may be granted **without substantial detriment to the neighborhood and without derogating from the intent and purpose of this Bylaw**. However, the Board shall not grant relief from the maximum height limitation in subsection 7.8.4.2(e). The Board shall be empowered to grant relief from any setback requirement in subsection 7.8.4.2(i), (j) or (k) **provided that the site proposed is demonstrated to be necessary to achieve adequate coverage or capacity and to be minimally intrusive upon the interests of the Town, consistent with Section 7.8.1 Purpose and Intent (a) through (e)**. The applicant shall provide the Board with a written statement describing why the requested relief is in the best interest of the Town with references to Section 7.8.1 Purpose and Intent (a) through (e)." [Emphasis added]*

We believe that the materials submitted to the Zoning Board of Appeals **do not** support the granting of relief from the general requirements of subsection 7.8.4.2.

1. As Town residents, based on our comments above related to subsection 7.8.4.3, in particular (i) the remarkable omission of consideration of existing and/or modifiable site facilities associated with the Sprint Corporation in the Town and in abutting towns, and (ii) the deficiencies in the analysis and review conducted by the independent consultant, we do not believe that relief is supported by any submitted study showing a significant gap in coverage, either by applicant or by consultant.
2. The extent of relief being sought by the applicant is exceptionally large. Specifically, the proposed facility contravenes subsections 7.8.4.2(e), 7.8.4.2(f), 7.8.4.2(j)(i), 7.8.4.2(j)(ii), 7.8.4.2(j)(vi), 7.8.4.2(l), and 7.8.4.2(p). This represents seven (7) distinct subsections of 7.8.4.2.
3. The exceptionally large extent of the relief being sought is not mitigated by a demonstration that the project provides a 'minimally intrusive viable means of reducing or eliminating' a putative significant gap in coverage. Indeed, as we have noted in our comments related to subsection 7.8.4.1, the applicant has failed to demonstrate, in a

manner convincing to a reasonable reviewer, that a putative coverage gap would not be reduced or eliminated by, for example, (i) using and/or modifying or adjusting existing facilities associated with Sprint, (ii) adjusting existing facilities in the Town and/or in abutting towns in which applicant has a legal or equitable interest, (iii) adjusting existing facilities in the Town and/or in abutting towns in which applicant does not have a legal or equitable interest, and/or (iv) the use of filler sites in conjunction with all personal wireless communication facility sites listed above.

4. The proposed project does not provide a **minimally intrusive viable means** of reducing or eliminating any putative significant gap in coverage without substantial detriment to the neighborhood and without derogating from the intent and purpose of the Bylaw.

There are multiple configurations of the 64' x 64' base station and 120' antenna tower, whether co-located together or separated (base station in one location, and antenna in separate location, connected by cabling), that would represent a less intrusive viable means of reducing or eliminating any putative significant gap in coverage while not infringing the 1000-foot limit to single-family detached dwellings articulated in subsection 7.8.4.2(j)(ii)). Applicant has not considered any configurations of base station situated separately from antenna, an architecture prevalent in the wireless industry, and as such has failed to consider alternative planning scenarios that represent a **more minimally-intrusive** viable means than the current proposal. In particular, location of an antenna array at the current smokestack site, with a 64' x 64' remote base station located elsewhere but electronically connected to the antenna by cabling, has not been considered.

As such, the applicant has failed to meet the requirement that the proposed site is demonstrated "...to be minimally intrusive upon the interests of the Town, consistent with Section 7.8.1 Purpose and Intent (a) through (e)," and request for relief is thus not warranted.

7.8.4.6 *Approval criteria: A special permit shall be issued under this section **only if** the Board shall find that the project is in harmony with the general purpose and intent of this Section. In addition, the Board, in consultation with the independent consultant referred to in subsection 7.8.4.3 shall make all the applicable findings before granting the special permit, as follows:*

*(a) that the applicant is not already providing adequate coverage and/or adequate capacity **and that a significant gap in coverage exists;***

*(b) that the applicant **is not able to use existing personal wireless communication facility site(s) either with or without the use of filler sites** to provide adequate coverage and adequate capacity;*

We have serious concerns regarding deficiencies in the applicant's submission, and regarding significant deficiencies in the external consultant's analysis and review of the applicant's submission, related to this subsection:

1. We do not believe it is reasonable to conclude that a significant gap in coverage exists, at least in part and among other reasons, because of the remarkable omission of consideration, by both applicant and external consultant, of existing and/or modifiable site facilities associated with the Sprint Corporation in the Town and in abutting towns. We refer to our comments related to subsections 7.8.4.1(a), 7.8.4.1(b), and 7.8.4.3.
2. The applicant has not provided written documentation, conforming to requirements of subsection 7.8.4.1(c), particularly documentation including radial plots, that they have analyzed the provision of adequate coverage and adequate capacity through the use of filler sites in conjunction with all personal wireless communication facility sites.

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